

B2 8. (Amended) The superconducting electric motor of claim [5] 6 wherein said electromagnetic shield member includes a conductive, non-magnetic material.

B3 12. (Amended) The superconducting electric motor of claim 1 further comprising:

a stator assembly electromagnetically coupled to the rotor assembly; and

an adjustable speed drive that provides an electrical signal to the stator assembly.

17. (Twice Amended) A superconducting electric motor comprising:

a rotor assembly including at least one superconducting winding comprising a high temperature superconductor, the superconducting winding, in operation, generating flux within the rotor assembly, the rotor assembly configured to operate

in a synchronous mode of operation at temperatures wherein the at least one superconducting winding exhibits superconducting characteristics and

B4 in [an] a steady-state induction mode at temperatures wherein the at least one superconducting winding exhibits non-superconducting characteristics;

a cryostat surrounding the rotor assembly to maintain the at least one superconducting winding at cryogenic temperatures; and

induction structure, which during operation, carries current at levels sufficient to allow the steady-state induction mode of operation of the superconducting electric motor, the induction structure including:

a support member which supports the at least one superconducting winding; and

an electromagnetic shield surrounding the cryostat and the at least one superconducting winding.

18. (Amended) The superconducting electric motor of claim 17 further comprising:

a stator assembly electromagnetically coupled to the rotor assembly; and

an adjustable speed drive that provides an electrical signal to the stator assembly.

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Serial No. : 09/371,692
Filed : August 10, 1999
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Attorney's Doc. No.: 05770-082001 / ASC-382

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21. (Amended) A method of operating a superconducting electric motor of the type including a rotor assembly including at least one superconducting winding which, in operation, generates a flux within the rotor assembly, and a support member which supports the at least one superconducting winding, the method comprising:

monitoring the temperature of the at least one superconducting winding;

operating the superconducting motor in a synchronous mode at a temperature wherein the at least one superconducting winding exhibits superconducting characteristics;
and

operating the superconducting motor in a steady-state induction mode at a temperature wherein the at least one superconducting winding exhibits non-superconducting characteristics.

REMARKS

Applicant amends claim 8 to depend on claim 6 instead of claim 5. The recitation of an "electromagnetic shield member" in claim 6 provides antecedent basis for the use of this term in claim 8. Applicant therefore requests withdrawal of the section 112 rejection of claim 8.

Applicant amends claim 17 to include a recitation of a "steady-state" induction mode, thereby providing antecedent basis for the use of this term in the subsequent recitation of the induction structure. Applicant therefore requests withdrawal of the section 112 rejection of claim 17.

The remaining claim amendments address antecedent basis problems and minor typographical errors.